PUBLIC SUBMISSION

As of: November 10, 2010
Received: November 08, 2010
Status: Posted
Posted: November 10, 2010
Tracking No. 80b84c2b
Comments Due: November 08, 2010
Submission Type: Web

Docket: EPA-R03-OW-2010-0736
Draft Chesapeake Bay Total Maximum Daily Load

Comment On: EPA-R03-OW-2010-0736-0001
Clean Water Act Section 303(d): Notice for the Public Review of the Draft Total Maximum Daily Load (TMDL) for the Chesapeake Bay

Document: EPA-R03-OW-2010-0736-0486
Comment submitted by G. Rathlev

Submitter Information

Organization: george Rathlev

General Comment

November 8, 2010

Mr. Tom Thorton
TMDL Coordinator
Maryland Department of the Environment
1800 Washington Boulevard
Suite 540
Baltimore, Maryland 21730

Re: Docket Number EPA-R03-OW-2010-0736

Dear Mr. Thorton;

I am a resident of Annapolis Maryland, living within the defined "Critical Area" and I am providing the comments below pursuant to the statement contained in the EPA website that "Comments are being accepted on the Draft Bay TMDL until November 8, 2010". I am aware that as part of the Bay TMDL process, the states within the Chesapeake Bay watershed must submit plans for reaching the pollution reduction targets established by the EPA's adopted TMDL.
In light of this dual requirement I have included my comments on the proposed Watershed Improvement Plan as submitted by Maryland in order to meet the EPA's requirements.
My comments are as follows;
1. Overall goal. I believe that the overall goal of establishing a "Total Maximum Daily Load" for the Bay is necessary and desirable as a public policy. I do not believe that limiting the TMDL levels to the three stated measurable criteria, (nitrogen, phosphorous and sediment) is sufficient. I recognize that these three are critical and accepted barometers of the Bay's health with some degree of reporting history however; the health of aquatic life in the bay is threatened by an ever growing influx of chemicals that are as potentially damaging as the three that the TMDL seeks to limit. I am referring to herbicides, pesticides, antibiotics and hormones being used throughout the watershed in the production of crops and livestock. If the proposed TMDL limits are met I believe that the health of all species in the Bay will still be

at serious risk from these chemicals as will anyone that consumes them. I would encourage the EPA to begin a process by which these chemicals are prevented from entering the Bay's waters.

2. Timing. I applaud the EPA for establishing deadlines in a process that in the past has resulted in very little real progress, however given the complexity of what the EPA is attempting to achieve I cannot believe that the short time frame between the end of the "public comment" period (November 8, 2010) and the "final versions (of the states Phase 1 WIP) due on November 29, 2010" , is adequate to allow for meaningful review and study of any such comments received, much
less to act upon in revising the plans. I would strongly suggest extending the time allowed to the states to receive, review, and react to any comment received prior to the final TMDL being adopted, and their submission of "final versions" of their Phase 1 WIP.

3. Public Participation and Comment. The Draft WIP prepared by Maryland states that "The table of strategies presented.....will be selected with the benefit of the public comments received." I do not think that the format was sufficiently developed so that the "public' could make an informed judgment about what was being presented, and by definition provide comment that would have meaning for those individuals or entities that will adopt the "strategies" to be implemented under the Watershed Implementation Plans. There is no cost data whatsoever to be found in either document that would give the public some idea of how much each form of "strategy" costs per pound of targeted improvement. There is very little, if any, assessment of the marginal efficiency of investment in any of the proposed "strategies". How is the public to comment on the approaches if no clear presentation is provided on (a) what each approach might cost, and (b) what the rate of return (pounds removed) on the "public's" dollar invested might be. I would like to consider myself an informed participant and recognize that the documents were prepared for consumption by the general public, but I found them bewildering at best, and purposely obfuscatory at worst.

4. Assumptions. Chapter 3 of Maryland's Draft Phase 1 WIP contains the following assumption, "New development on septic tanks is assumed to be in the form of 2 acre lots that contribute non-point source loads of 3.15lbs TN per acre per year, served by septic systems discharging 12.16 pounds of TN per year." In W.G. Reay's comprehensive study of the impact of septic systems he determined the amount of Nitrogen loading to be 16.75 pounds per year. The amount was not based on lots as large as 2 acres, and they were in close proximity to tidal waters with a relatively shallow groundwater influence. The estimate was based on "conventional" septic system design and I can only assume the same for the WIP statement as it is not defined. In the January 2009 Bay Restoration Fund Advisory Committee Annual Status Report it says that 450 enhanced nutrient removal septic systems were installed utilizing Bay Restoration Grant Funding, and that this eliminated 6,849 pounds of nitrogen from the Bay watershed. On a per unit basis that would be 15.2lbs per dwelling, or more than the total amount estimated by the Maryland Department of Planning and very close to the same thing when adjusting the W.G. Reay results for larger lots and less proximity to high water tables. The figures provided in the January 2010 Annual Status report reflects the same per unit average reduction. Is it possible for these systems to be removing 100% of the estimated nitrogen load? Is the assumption in the WIP correct?

5. Assumptions. The January 2009 and 2010 Annual Status report noted above state that there are over 50,000 septic systems within the Maryland Chesapeake Bay Critical Area. The reports also state that annual replacements and/or upgrades are approximately 500 units a year with the rate of replacement matching funding provided by the Bay Restoration Grant (BRG) Fund. The "Summary Table of Actions" component of the draft WIP acknowledges this level of effort by stating that 535 systems are to be replaced using BRG funding and that 90 additional systems will be upgraded through the use of "surplus" funds after all priority applications have been addressed. The Phase 1 WIP calls for a 38% reduction in Nitrogen loads from septic systems. MDE estimates that there are 420,000 such systems in the state and 51,000 of them are located within the defined Critical Area. Would it be reasonable to say that if 38% of the OSD's in the state reached a total annual nitrogen load of less than 1lb per year the goal would be met? If so that would equate to nearly 160,000 systems, or more than three times the total number of OSD's in the Critical Area alone. The state does not have the money to embark on such a plan and the WIP really does not offer any alternative. Is a 38% reduction in Nitrogen Loading from septic systems a realistic assumption?

6. Assumptions. The EPA Draft TMDL and the Maryland Draft Phase 1 WIP both state that equitable solutions must be reached based on stakeholder input. The Bay Restoration Grant Fund receives it money via a $30 per wastewater system user or septic system owner. All funds (net of administrative expenses) collected from waste water system users in applied to the upgrade of waste water treatment plants. Septic system owners only receive 60% of the benefit if their contribution as the remaining 40% is diverted to subsidies for agriculture. I believe that 100% of the tax imposed on homeowners should be utilized to improve all OSD systems within the Critical Area prior to diverting any such funds for the benefit of private agricultural business interests.

7. Assumptions. The Maryland Draft WIP calls for reductions in pollutant loading from Urban regulated and Urban

non-regulated areas. It is my understanding that the difference is between point and non-point source i.e. permitted and non-permitted sources of runoff. I believe that this is not a sufficiently defined or refined distinction. It lumps urban areas with combined sanitary and storm sewer systems which in many cases or nearly 100% impervious with little or no forms of storm water management with properties or building s that have been constructed since the introduction of storm water regulations in the 1980's. I believe that at least one additional category of measurement needs to be added in order to correctly assess the impact of new projects.

8. Assumptions. The Maryland Draft WIP states that significant reductions in nitrogen (33%) and Phosphorous (38%) pollution were achieved while accommodating a 29% increase in population. There is no specific data in the draft WIP that indicates how this was achieved however a report prepared by Wetland Studies and Solutions Inc. , (WSSI) utilizing the Chesapeake Bay Watershed Model (5.3) states that "Nearly half (48.4%) of the agricultural TN load decrease from 1985 to 2009 is the result of land conversion of agricultural land to urban land. Approximately 60% of the TP and TSS load reductions result from land conversion rather than BMPs". I compared this data with information available from the US Census Bureau and the Maryland Department of Agriculture. I chose three western shore counties that have experienced significant population growth, (Anne Arundel, Montgomery and Prince George). Since 1997 these three Counties have seen an increase in population of nearly 200,000 while farm acreage has dropped from 164,963 acres to 133,862 a decline of nearly 18%. On the Eastern Shore Counties of Caroline, Dorchester and Talbot population has increased by approximately 6,500 while agricultural acreage has increased from 346,132 acres to 373,467 acres. A recent report released by the US Geological Survey states that water quality in the Choptank River (bounded by the above eastern shore counties) has worsened. Such data would seem to provide credibility to the WSSI report conclusion. If this is indeed the case, the underlying assumption on how water quality improvements have been achieved to date needs to be re-examined in light of this data. I would recommend that a much greater emphasis needs to be devoted to analyzing how agricultural lands can truly reduce the impact of their activities on the Bay Watershed and a greater percentage of the improvement in water quality achievement needs to be assigned to the agricultural sector.

9. Assumptions. The Maryland Phase 1 Draft WIP contains several references to a nutrient "Cap and Trade" program, (Section 3, Accounting for Growth). The process, means, pricing, and management of such a program or so vaguely stated that no reasonable conclusion can be reached regarding the validity of such a proposal. I would recommend deleting this recommendation in it's entirety unless specific program terms are added so that it implications can clearly be understood.

10. Data collection. It is my understanding that many of the assumptions contained in the EPA's TMDL and the Maryland WIP are based on a computer model. Given the size of the watershed and the complexity of the analysis I cannot imagine any other means of attempting to create an overall plan for improving the Bay. I would strongly recommend that the number of data collection points be increased to validate the assumptions contained in the computer model.

11. Realistic Goal Setting. The Maryland Phase 1 Draft WIP sets a goal of achieving 70% of the target reduction for regulated urban pollutant loads by 2017. This is exclusive of discharges from waste water treatment plants. The chart provided on page 6 of the Executive Summary indicates that a 1,000,000lb reduction in nitrogen pollution from regulated urban runoff is required for Maryland by 2020 and that 70% of that goal will be achieved by 2017. The most significant proposal for achieving that goal contained in the "Summary Table of Actions" is to require SHA and Counties to install storm water management controls at 30%, 40% or 50% of existing impervious surfaces without controls. I do not believe that it will be possible to identify and generate the necessary funding for any of these levels of retrofit much less design and install them by 2017. I think a more realistic analysis of actual pollutant sources and cost effective controls is required to meet the 2020 reduction targets much less those set for 2017.

As a resident who cherishes those days that I am fortunate enough to get out on the water, I applaud all those who truly seek to make it better, and I hope that you will accept the above in the hope that we can all achieve that goal.

Sincerely,

George Rathlev
1912 White Heron Road
Annapolis, Maryland 21409